

Exhibit A

>AB025413 ACCESSION:AB025413 NID: gi 4760781 dbj AB025413.1 Mus
musculus mRNA for Ten-m4, complete cds
Length = 8585

Score = 5617 bits (14410), Expect = 0.0
Identities = 2673/2771 (96%), Positives = 2713/2771 (97%), Gaps = 18/2771 (0%)
Frame = +2

Query: 1 MDVKERKPYRSLTRRRDAERRY TSSSADSEEGKAPQKSYSSSETLKAYDQDARLAYGSRV 60
MDVKERKPYRSLTRRRDAERRY TSSSADSEEGK POKSYSSSETLKAYDQDARLAYGSRV
Sbjct: 188 MDVKERKPYRSLTRRRDAERRY TSSSADSEEGKGPQKSYSSSETLKAYDQDARLAYGSRV 367

Query: 61 KDIVPQEAEEFCRTGANFTLRELGL EEVTPPHGTL YRTDIGLPHCGYSMGA SDAD+EAD 120
KD+VPQEAEEFCRTG NFTLRELGL E+TPPHGTL YRTDIGLPHCGYSMGA SDAD+EAD
Sbjct: 368 KDMVPQEAEEFCRTGTNFTLRELGLGEMTPPHGTL YRTDIGLPHCGYSMGASSDADLEAD 547

Query: 121 TVLSPEHPVRLWGRSTRSGRSSCLSSRANSNLTLTDEHENTETDHPGGLQNHARLRTPP 180
TVLSPEHPVRLWGRSTRSGRSSCLSSRANSNLTLTDEHENTETDHP LQNH RLRTPP
Sbjct: 548 TVLSPEHPVRLWGRSTRSGRSSCLSSRANSNLTLTDEHENTETDHPSSLQNHPRLRTPP 727

Query: 181 PPLSHAHTPNQHHAASINSLNRGNFTPRSNPSPAPTDHSLSGEPPAGGAQEP AHAQENWL 240
PPL HAHTPNQHHAASINSLNRGNFTPRSNPSPAPTDHSLSGEPPAG AQEP HAQ+NWL
Sbjct: 728 PPLPHAHTPNQHHAASINSLNRGNFTPRSNPSPAPTDHSLSGEPPAGSAQEP THAQDNWL 907

Query: 241 LNSNIPL ETRNLGKQPFLGTLQDNLIEMDILGASRHDGAYS DGHFLFKPGGTSPLFCTTS 300
LNSNIPL ETRNLGKQPFLGTLQDNLIEMDIL ASRHDGAYS DGHFLFKPGGTSPLFCTTS
Sbjct: 908 LNSNIPL ETRNLGKQPFLGTLQDNLIEMDILSASRHDGAYS DGHFLFKPGGTSPLFCTTS 1087

Query: 301 PGYPLTSSTVYSPPPRPLPRSTFARPAFNLKKPSKYCNWKCAALSAIVISATLVILLAYF 360
PGYPLTSSTVYSPPPRPLPRSTF+RPAFNLKKPSKYCNWKCAALSAI+ISATLVILLAYF
Sbjct: 1088 PGYPLTSSTVYSPPPRPLPRSTFSRPAFNLKKPSKYCNWKCAALSAILISATLVILLAYF 1267

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VAMHLFGLNWHLQPMEGQM YEITEDTASSWPVPTDVS LYPSSGGTGLETPDRKGKG E
Sbjct: 1268 VAMHLFGLNWHLQPMEGQM QMYEITEDTASSWPVPTDVS LYPSSGGTGLETPDRKGKGAAE 1447

Query: 419 GKPSSFFPEDSFIDSGEIDVGRRASQKIPPGTFWRSQVFIDHPVHLKFN VSLGKAALVGI 478
GKPSS FPEDSFIDSGEIDVGRRASQKIPPGTFWRSQVFIDHPVHLKFN VSLGKAALVGI
Sbjct: 1448 GKPSSLFPEDSFIDSGEIDVGRRASQKIPPGTFWRSQVFIDHPVHLKFN VSLGKAALVGI 1627

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Sbjct: 1628 YGRKGLPPSHTQFDFVELLDGRRLLTQEARSLEGPQRQSRGVPVPPSSHETGFIQYLD SGI 1807

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Query: 599 VLCSGNGQYMKGRCLCHSGWKGAECDVPTNQCIDVACS NHGTCITGTCICNPGYKGESCE 658
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Sbjct: 1988 VLCSGNGQYMKGRCLCHSGWKGAECDVPTNQCIDVACSSHGTCIMGTCICNPGYKGESCE 2167

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EVDCMDPTCS RGVCVRGECHCSVGWGGTNCETPRATCLDQCSGHGTFLPDTGLC+CDPS
Sbjct: 2168 EVDCMDPTCSSRGVCVRGECHCSVGWGGTNCETPRATCLDQCSGHGTFLPDTGLCNC DPS 2347

Query: 719 WTGHDCSIEICAADCGGHGVCVGGTCRCEDGWMGAACDQRACHPRCAEHGTCRDGKCECS 778
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 Sbjct: 2348 WTGHDCSIEICAADCGGHGVCVGGTCRCEDGWMGAACDQRACHPRCAEHGTCRDGKCECS 2527

Query: 779 PGWNGEHCTI-----EGCPGLCNGNGRCTLDLNGWHCVCQLGWRGAGCDTSMETAC 829
 PGWNGEHCTI EGCPGLCNGNGRCTLDLNGWHCVCQLGWRG GCDTSMET C
 Sbjct: 2528 PGWNGEHCTIAHYLDRVVKEGCPGLCNGNGRCTLDLNGWHCVCQLGWRGTGCDTSMETGC 2707

Query: 830 GDSKDNDGDGLVDCMDPDCCLQPLCHINPLCLGSPNPLDIIQETQVPVSQQNLHSFYDRI 889
 GD KDNDGDGLVDCMDPDCCLQPLCH+NPLCLGSP+PLDIIQETQ PVSQQNL+ FYDRI
 Sbjct: 2708 GDGKDNDGDGLVDCMDPDCCLQPLCHVNPLCLGSPDPLDIIQETQAPVSQQNLNPFYDRI 2887

Query: 890 KFLVGRDSTHIIPGENPFDGGHACVIRGQVMTSDGTPLVGVNISFVNNPLFGYTISRQDG 949
 KFLVGRDSTH IPGENPFDGGHACVIRGQVMTSDGTPLVGVNISF+NNPLFGYTISRQDG
 Sbjct: 2888 KFLVGRDSTHSIPGENPFDGGHACVIRGQVMTSDGTPLVGVNISFINNPLFGYTISRQDG 3067

Query: 950 SFDLVTNNGGISIILRFERAPFITQEHTLWLPWDRFFVMETIIMRHEENEIPSCDLSNFAR 1009
 SFDLVTNNGGISIILRFERAPFITQEHTLWLPWDRFFVMETI+MRHEENEIPSCDLSNFAR
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Query: 1010 PNPVVSPSPLTSFASSCAEKGPIVPEIQALQEEISISGCKMRLSYLSSRTPGYKSVLRIS 1069
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Query: 1250 NVTNILEL-----SHSPAHHYYLATDPMGAVFLSDSNSRRVFKIKSTVVKDLVKNS 1302
 NVTNILEL+ SHSPAHHYYLATDPMGAVFLSD+NSRRVFK+KST VVKDLVKNS
 Sbjct: 3968 NVTNILEMRNKDFRSHSPAHHYYLATDPMGAVFLSDTNSRRVFKVKSTVVKDLVKNS 4147

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Query: 1363 STLLGSNDLTSARPLSCDSVMDISQVHLEWPTDLAINPMDNSLYVLDNNVVLQISENHQV 1422
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Query: 1423 RIVAGRPMHCQVPGIDHFLLSKVAIHATLESATALAVSHNGVLYIAETDEKKINRIRQVT 1482
 RIVAGRPMHCQVPGIDHFLLSKVAIHATLESATALAVSHNGVLYIAETDEKKINRIRQVT
 Sbjct: 4508 RIVAGRPMHCQVPGIDHFLLSKVAIHATLESATALAVSHNGVLYIAETDEKKINRIRQVT 4687

Query: 1483 TSGEISLVAGAPSGCDCKNDANCDGSGDDGYAKDAKLNTPSSSLAVCADGELYVADLGNI 1542
 TSGEISLVAGAPSGCDCKNDANCDGSGDDGYAKDAKLNTPSSSLAVCADGELYVADLGNI
 Sbjct: 4688 TSGEISLVAGAPSGCDCKNDANCDGSGDDGYAKDAKLNTPSSSLAVCADGELYVADLGNI 4867

Query: 1543 RIRFIRKNKPFLNTQNMYELSSPIDQELYLFDDTTGKHLTYTQSLPTGDYLYNFTYTGDDGI 1602
RIRFIRKNKPFLNTQNMYELSSPIDQELYLFDDT+GKHLTYTQSLPTGDYLYNFTYTGDDGI

Sbjct: 4868 RIRFIRKNKPFLNTQNMYELSSPIDQELYLFDDTSGKHLTYTQSLPTGDYLYNFTYTGDDGI 5047

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Sbjct: 5408 TTNLSASGAFYTLLQDQVRNSYYIGADGSLRLLLANGMEVALQTEPHLLAGTVNPTVGKR 5587

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Query: 2203 LNGNLHLLSPGNSARLTPLRYDIRDRITRLGDVQYKMDDEDGFLRQRGGDIFEYNSAGLLI 2262
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Sbjct: 7208 YDLQGHFLAMELSSGDEFYIACDNIGTPLAVFSGTGLMIKQILYTAYGEIYMDTNPNFQI 7387

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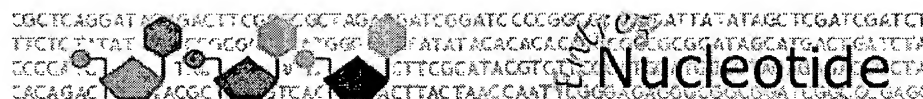
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Query: 2743 HFMRQSEMGR 2753
HFMRQSEMGR

Sbjct: 8468 HFMRQSEMGR 8500

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LOCUS AB025413 8585 bp mRNA linear ROD 08-MAY-1999
 DEFINITION *Mus musculus* mRNA for Ten-m4, complete cds.
 ACCESSION AB025413
 VERSION AB025413.1 GI:4760781
 KEYWORDS Ten-m4.
 SOURCE *Mus musculus* (house mouse)
 ORGANISM *Mus musculus*
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 REFERENCE 1 (sites)
 AUTHORS Oohashi,T., Zhou,X., Feng,K., Richter,B., Moergelin,M., Perez,M.T.,
 Su,W., Chiquet-Ehrismann,R., Rauch,U. and Faessler,R.
 TITLE Mouse Ten-m/Odz is a new family of dimeric type II transmembrane
 proteins expressed in many tissues
 JOURNAL J. Cell Biol. (1999) In press
 REFERENCE 2 (bases 1 to 8585)
 AUTHORS Oohashi,T.
 TITLE Direct Submission
 JOURNAL Submitted (29-MAR-1999) Toshitaka Oohashi, Okayama University
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 Fax:+81-86-222-7768)
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